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Cheung, Tai Ming; Hagt, Eric

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**Civil-Military Integration and the Rise of
China's Techno-Security State:
Implications for Great Power
Competition with the United States**

Tai Ming Cheung (University of California,
San Diego)

Eric Hagt (Johns Hopkins University)

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Project Outline

Project addresses China's efforts in civil-military integration (CMI), impact on development of its defense acquisition system, and implications for U.S., and key questions were:

- What are strategic aims of China's CMI approach and what impact will it have on China's goal of becoming a world-class defense innovation leader?
- What are roles and scope of actors, institutions, and programs involved in CMI? How successful will current efforts be in overcoming barriers?
- What are the implications for the U.S. defense acquisition system and its defense industrial base?

Introduction

U.S.-China great power competition sometimes compared to a **new Cold War** in comparison to U.S.-Soviet grand struggle of 1940s-1980s

While **similarities** exist (opposing political systems, geo-strategic competition), **differences** are greater

US-China rivalry **far more complicated and comprehensive:**

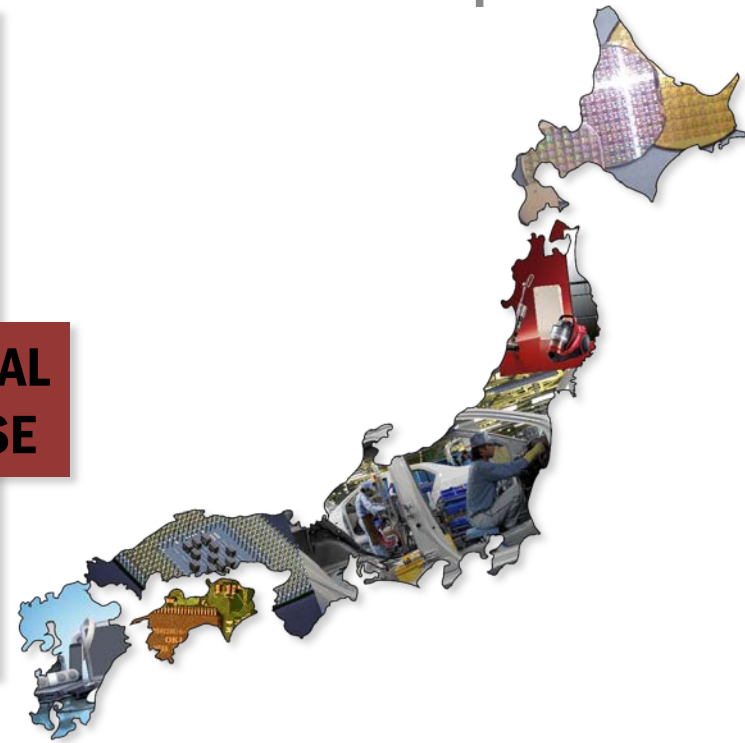
- **Geo-economic competition and cooperation**, which can be compared to U.S.-Japan rivalry in 1980s-90
- **Civil-military and emerging/strategic tech** arenas, which today are more blurred, expansive, and influential

MID-LATE TWENTIETH CENTURY GREAT POWER COMPETITION: U.S. vs SOVIET UNION AND JAPAN

Defense Sphere



Commercial Sphere



**DUAL
USE**

U.S. vs Soviet Union and Japan

Nature of strategic competition between U.S. and Soviet Union and Japan 20th Century Cold War was compartmentalized: Soviet **military threat** from 1940s-late 1980s, while Japan was **economic-tech** competitor in 1980s-1990s

U.S. had very different model -**military techno-nationalist base and commercial techno-globalist system** sharing vital components of innovation system (research and development base)

Having integrated military and civilian S&T and economic systems provided powerful synergies - strong companies, innovation system- that Soviet Union and Japan did not have

21ST CENTURY GREAT POWER COMPETITION

THE CHINESE TECHNO-SECURITY STATE

Defense Sphere

Commercial Sphere

Core Emerging Strategic Technologies

Face+ 旷视 天眼系统

在逃犯数据中 ESCAPED CRIMINAL DATA

付某 FU

符合 MATCHED 91.2%

2016年1月于江苏无锡市被旷视天眼识别预警

Techno-Security State Under Xi Jinping

China under Xi Jinping is a **security-maximizing state** building its **power and prestige** on a capable economic and tech foundation

China is a **techno-security state** -development efforts of the state prioritized to meet **expansive national security requirements**

Xi has invested much **political capital** -heads numerous commissions on National Security, Cyberspace Affairs, Military Civil Fusion commission

Xi champions key **techno-security initiatives** (innovation-driven development strategy)

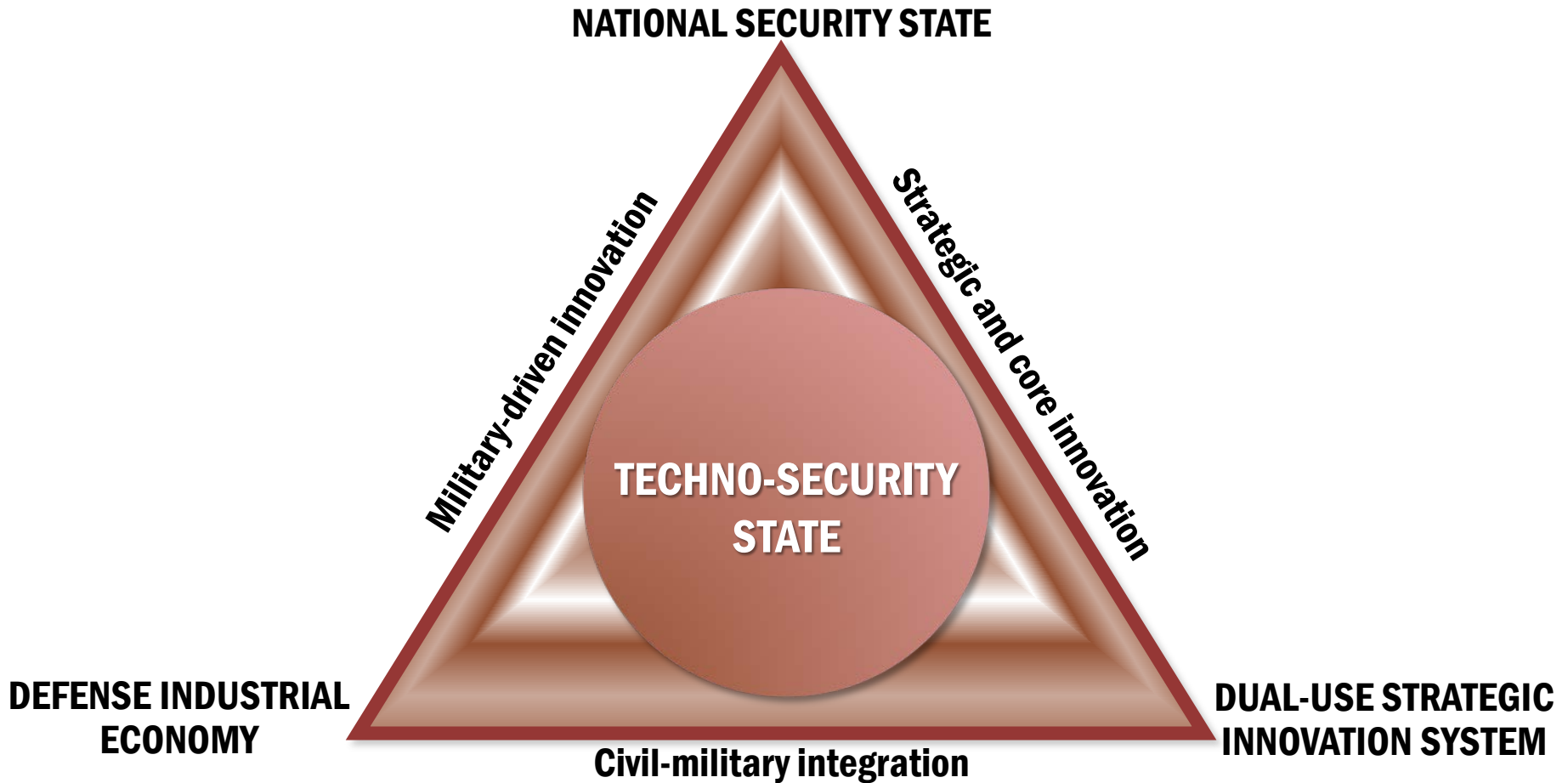
Composition of China's Techno-Security State

Building a strong **national security state**, especially prioritizing development of military, internal security, and information control capabilities across a wide array of domains

Constructing an advanced **defense science, technology, and industrial base**

Forging a dual-use **strategic innovation system** that is comprised of a tightly integrated and **expansive civil-military economic base** and the cultivation of a capable **research, development, and translation system focusing on strategic emerging core technologies**

THE CHINESE TECHNO-SECURITY STATE



Forging a High-Tech Dual-Use Economy

Integrated civil-military industrial economy has been long-standing Chinese goal

Xi made military-civil fusion (MCF) top priority:

- **Elevating MCF to national strategy in 2015**
- **Leads new MCF Commission set up in 2017**

Development of strategic emerging core technologies (SECT) has become a central priority--Science, Technology, and Innovation Major Projects 2030 Plan established in 2016—16 megaprojects

Goals of MCF Development Strategy

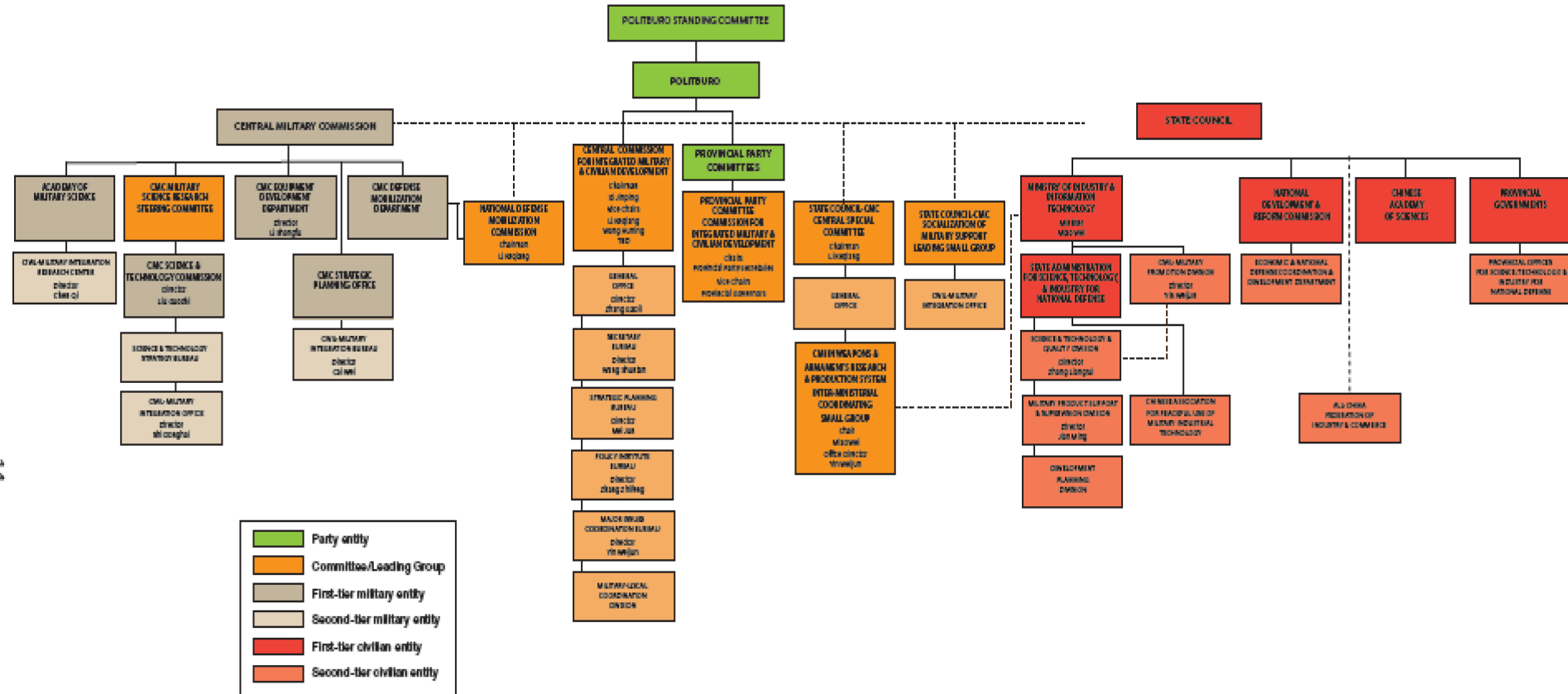
Conduct R&D in AI, bio-tech, advanced electronics, quantum, advanced energy, future networks, advanced manufacturing, new materials “to **capture commanding heights** of international competition”

Undertake **integrated special projects** in remote sensing, marine-related, advanced manufacturing, biology, transportation

Joint construction of **dual-use research platforms** like national key laboratories, national engineering research centers, and MCF research institutes

Developing **financial mechanisms** to support MCF, such as **government-directed guidance funds**

China's Civil-Military Integration Leadership, Coordination, and Management System, 2019



- Party entity
- Committee/Leading Group
- First-tier military entity
- Second-tier military entity
- First-tier civilian entity
- Second-tier civilian entity

Challenges of MCF

Traditional **deep separation** between civilian and defense sectors

Continued **monopoly** of defense enterprises

High degree of political and economic **fragmentation** of the acquisition system

Complexity of MCF concept: multi-sector, state-private divide, whole supply chain, geographic diversity, civilian-military domain

Center-local divisions in operating economy, industry, S&T system

Notable MCF Outcomes

Organizational Restructuring: Creation of Party Commission for MCF (unprecedented)

Developing financial mechanisms to support MCF: Recapitalization of defense industry through markets and government-directed guidance **funds to support MCF**

Emergence of **MCF-specific acquisition system** includes reforms of old system and addition of new elements

MCF strong in discrete technologies, components and subsystems though **no evidence yet of lead system integrator role**

Policy Implications

Techno-security rivalry is at heart of **great power competition** between the U.S. and China

Blurring of state-non-state and civil-military boundaries—challenge for nuanced and limited assessment of national security threats

Better understanding of evolving nature of China's techno-security state needed, especially new investment mechanisms, MCF, SECT

Need for comprehensive, **holistic approach** to technology and supply chain mapping in **assessing vulnerabilities and risks**, particularly those more distant from defense domain

How Should U.S. and Allies Address China's Technological Challenge?

Need to decide to seek **total or partial decoupling** of global tech order: U.S. advocating total, allies (Europe) want selective approach, requires more nuanced and long-term approach of MCF and SECT

Comprehensive **cost-benefit analysis** required to balance national security risks with economic and innovation benefits

Understand significant **challenges to MCF implementation** in China -**risks in overreaction**

Need to have coordinated **multilateral and multi-stake holder** undertaking -not just U.S. government imposing